Treasure Island Resort and Casino
Generation Facility

Part 71 Operating Permit Renewal Application

Submitted by: Energy Alternatives, Inc.

October 2008

Prepared by:
JEM Environmental, LLC
jemenvironmental@mchsi.com

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Kairis (First) Phillip (MI) ____

Title Vice President

Street or P.O. Box 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 - ____

Telephone (651) 341 - 2244 Ext. ____ Facsimile (651) 460 - 6717

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) _____

Name (typed) Phillip Kairis Date: 10 / 3 / 08

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

GENERAL INFORMATION AND SUMMARY (GIS)

A. Mailing Address and Contact Information

Facility name Treasure Island Resort and Casino Generation Facility

Mailing address: Street or P.O. Box Energy Alternatives, Inc. 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 -

Contact person: Phil Kairis Title Vice President

Telephone (651) 341 - 2244 Ext.

Facsimile (651) 460 - 6717

B. Facility Location

Temporary source? ___Yes _X_No

Plant site location 5734 Sturgeon Lake Road

City Red Wing State MN County Goodhue EPA Region 5

Is the facility located within:

Indian lands? _X_YES ___NO OCS waters? ___YES _X_NO

Non-attainment area? ___YES _X_NO If yes, for what air pollutants?

Within 50 miles of affected State? _X_YES __NO If yes, What State(s)? WI

C. Owner

Name Energy Alternatives, Inc. Street/P.O. Box 17685 Juniper Path, Suite 301

City Lakeville State MN ZIP 55044 -

Telephone (651) 341 - 2244 Ext

D. Operator

Name Same as Owner Street/P.O. Box

City State ZIP -

Telephone ( ) - Ext

E. Application Type

Mark only one permit application type and answer the supplementary question appropriate for the type marked.

___Initial Permit _X_ Renewal ___ Significant Mod ___ Minor Permit Mod (MPM)

___ Group Processing, MPM ___ Administrative Amendment

For initial permits, when did operations commence? _____ /_____ /_____

For permit renewal, what is the expiration date of current permit? 04 / 08 / 2009

F. Applicable Requirement Summary

Mark all types of applicable requirements that apply.

___ SIP ___ FIP/TIP _X_ PSD ___Non-attainment NSR

___ Minor source NSR ___ Section 111 ___ Phase I acid rain ___Phase II acid rain

___ Stratospheric ozone ___ OCS regulations ___ NESHAP ___ Sec. 112(d) MACT

___ Sec. 112(g) MACT ___ Early reduction of HAP ___ Sec 112(j) MACT ___ RMP [Sec.112(r)]

___ Tank Vessel requirements, sec. 183(f)) ___ Section 129 Standards/Requirement

___ Consumer / comm.. products, ' 183(e) ___ NAAQS, increments or visibility (temp. sources)

Has a risk management plan been registered? ___YES _X_NO Regulatory agency _____

Phase II acid rain application submitted? ___YES _X_NO If yes, Permitting authority _____

G. Source-Wide PTE Restrictions and Generic Applicable Requirements

Cite and describe any emissions-limiting requirements and/or facility-wide "generic" applicable requirements.

Permit No. V-PI-R50004-03-01, Section 2.0 (A) Emission Limitations and Standards
1.i. Total NOx emissions from each engine shall not exceed 6.55 g/bhp-hr.
ii. Total NOx emissions from each engine shall not exceed 37.44 lb/hr.
iii. Total NOx emissions from each engine shall not exceed 10.30 tons/year.
2. Total operating hours of each engine shall not exceed 550 hrs/year, based on a 12-month rolling sum.

H. Process Description

List processes, products, and SIC codes for the facility.

Process	Products	SIC
Electricity generation		4911

I. Emission Unit Identification

Assign an emissions unit ID and describe each emissions unit at the facility. Control equipment and/or alternative operating scenarios associated with emissions units should by listed on a separate line. Applicants may exclude from this list any insignificant emissions units or activities.

Emissions Unit ID	Description of Unit
EU-01	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-02	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-03	Internal Combustion Engine (diesel-fired); Caterpillar 3516B
EU-04	Internal Combustion Engine (diesel-fired); Caterpillar 3516B

J. Facility Emissions Summary

Enter potential to emit (PTE) for the facility as a whole for each air pollutant listed below. Enter the name of the single HAP emitted in the greatest amount and its PTE. For all pollutants stipulations to major source status may be indicated by entering "major" in the space for PTE. Indicate the total actual emissions for fee purposes for the facility in the space provided. Applications for permit modifications need not include actual emissions information.

NOx 41.2 tons/yr VOC 1.3 tons/yr SO2 1.0 tons/yr

PM-10 0.8 tons/yr CO 3.4 tons/yr Lead 0 tons/yr

Total HAP 0.0 tons/yr

Single HAP emitted in the greatest amount Benzene PTE 0.01 tons/yr

Total of regulated pollutants (for fee calculation), Sec. **F**, line 5 of form FEE 8 tons/yr

K. Existing Federally-Enforceable Permits

Permit number(s) V-PI-R50004-03-01 Permit type Part 71 Permitting authority EPA Region 5

Permit number(s) _____ Permit type _____ Permitting authority _____

L. Emission Unit(s) Covered by General Permits

Emission unit(s) subject to general permit _____

Check one: ___ Application made ___ Coverage granted

General permit identifier _____ Expiration Date ___/___/___

M. Cross-referenced Information

Does this application cross-reference information? _X_ YES ___ NO (If yes, see instructions)

INSTRUCTIONS FOLLOW

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

A. General Information

Emissions unit ID EU-01 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

B. Emissions Unit Description

Primary use Backup power and peak load management Temporary Source ___Yes _X_No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01901 Installation Date 05 / 25 / 2001

Boiler Type: ___ Industrial boiler ___ Process burner ___ Electric utility boiler

Other (describe) _____

Boiler horsepower rating_____ Boiler steam flow (lb/hr)_____

Type of Fuel-Burning Equipment (coal burning only):

___ Hand fired ___Spreader stoker ___Underfeed stoker ___Overfeed stoker

___ Traveling grate ___Shaking grate ___Pulverized, wet bed ___ Pulverized, dry bed

Actual Heat Input 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

C. Fuel Data

Primary fuel type(s) Diesel Standby fuel type(s) NA

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.05%	NA	0.129 MMBtu/gal

D. Fuel Usage Rates

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.
(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

E. Associated Air Pollution Control Equipment

Emissions unit ID _____ Device type NA

Air pollutant(s) Controlled _____ Manufacturer _____

Model No. _____ Serial No. _____

Installation date ____/____/_____ Control efficiency (%) _____

Efficiency estimation method _____

F. Ambient Impact Assessment

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) _____._____	Inside stack diameter (ft) _____._____
Stack temp(°F) _____._____	Design stack flow rate (ACFM) _____._____
Actual stack flow rate (ACFM) _____._____	Velocity (ft/sec) _____._____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

A. General Information

Emissions unit ID EU-02 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

B. Emissions Unit Description

Primary use Backup power and peak load management Temporary Source ___Yes _X_No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01825 Installation Date 05 / 25 / 2001

Boiler Type: ___ Industrial boiler ___ Process burner ___ Electric utility boiler

Other (describe) _____

Boiler horsepower rating_____ Boiler steam flow (lb/hr)_____

Type of Fuel-Burning Equipment (coal burning only):

___ Hand fired ___Spreader stoker ___Underfeed stoker ___Overfeed stoker

___ Traveling grate ___Shaking grate ___Pulverized, wet bed ___ Pulverized, dry bed

Actual Heat Input 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

C. Fuel Data

Primary fuel type(s) Diesel Standby fuel type(s) NA

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.05%	NA	0.129 MMBtu/gal

D. Fuel Usage Rates

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.
(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

E. Associated Air Pollution Control Equipment

Emissions unit ID_____ Device type NA

Air pollutant(s) Controlled_____ Manufacturer_____

Model No._____ Serial No._____

Installation date_____/_____/_____ Control efficiency (%) _____

Efficiency estimation method_____

F. Ambient Impact Assessment

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) _____._____	Inside stack diameter (ft) _____._____
Stack temp(°F) _____._____	Design stack flow rate (ACFM) _____._____
Actual stack flow rate (ACFM) _____._____	Velocity (ft/sec) _____._____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

A. General Information

Emissions unit ID EU-03 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

B. Emissions Unit Description

Primary use Backup power and peak load management Temporary Source ___Yes _X_No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01827 Installation Date 05 / 25 / 2001

Boiler Type: ___ Industrial boiler ___ Process burner ___ Electric utility boiler

Other (describe) _____

Boiler horsepower rating_____ Boiler steam flow (lb/hr)_____

Type of Fuel-Burning Equipment (coal burning only):

___ Hand fired ___Spreader stoker ___Underfeed stoker ___Overfeed stoker

___ Traveling grate ___Shaking grate ___Pulverized, wet bed ___ Pulverized, dry bed

Actual Heat Input 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

C. Fuel Data

Primary fuel type(s) Diesel Standby fuel type(s) NA

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.05%	NA	0.129 MMBtu/gal

D. Fuel Usage Rates

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.
(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

E. Associated Air Pollution Control Equipment

Emissions unit ID_____ Device type NA

Air pollutant(s) Controlled_____ Manufacturer_____

Model No._____ Serial No._____

Installation date____/____/_____ Control efficiency (%) _____

Efficiency estimation method_____

F. Ambient Impact Assessment

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) _____._____	Inside stack diameter (ft) _____._____
Stack temp(°F) _____._____	Design stack flow rate (ACFM) _____._____
Actual stack flow rate (ACFM) _____._____	Velocity (ft/sec) _____._____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

A. General Information

Emissions unit ID EU-04 Description Diesel fired internal combustion engine

SIC Code (4-digit) 4911 SCC Code 20100102

B. Emissions Unit Description

Primary use Backup power and peak load management Temporary Source ___Yes _X_No

Manufacturer Caterpillar Model No. 3516B

Serial Number 7RN01824 Installation Date 05 / 25 / 2001

Boiler Type: ___ Industrial boiler ___ Process burner ___ Electric utility boiler

Other (describe) _____

Boiler horsepower rating_____ Boiler steam flow (lb/hr)_____

Type of Fuel-Burning Equipment (coal burning only):

___ Hand fired ___Spreader stoker ___Underfeed stoker ___Overfeed stoker

___ Traveling grate ___Shaking grate ___Pulverized, wet bed ___ Pulverized, dry bed

Actual Heat Input 16.76 MM BTU/hr Max. Design Heat Input 16.76 MM BTU/hr

C. Fuel Data

Primary fuel type(s) Diesel Standby fuel type(s) NA

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.05%	NA	0.129 MMBtu/gal

D. Fuel Usage Rates

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	17,446 gallons (1)	130.2 gallons	71,610 gallons (2)

(1) Based on 134 operating hours in 2007 x 130.2 gallons/hour.
(2) Based on limit of 550 operating hours per year x 130.2 gallons/hour.

E. Associated Air Pollution Control Equipment

Emissions unit ID_____ Device type NA

Air pollutant(s) Controlled_____ Manufacturer_____

Model No._____ Serial No._____

Installation date____/____/____ Control efficiency (%) _____

Efficiency estimation method_____

F. Ambient Impact Assessment

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) _____._____	Inside stack diameter (ft) _____._____
Stack temp(°F) _____._____	Design stack flow rate (ACFM) _____._____
Actual stack flow rate (ACFM) _____._____	Velocity (ft/sec) _____._____

An Ambient Impact Assessment was submitted with the PSD construction permit application.

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

INSIGNIFICANT EMISSIONS (IE)

List each insignificant activity or emission unit. In the "number" column, indicate the number of units in this category. Descriptions should be brief but unique. Indicate which emissions criterion of part 71 is the basis for the exemption.

Number	Description of Activities or Emissions Units	RAP, except HAP	HAP
1	10,000 gallon underground diesel fuel storage tank	X	

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID EU-01

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
Nitrogen oxides (NOx)	2.0	37.44	10.30	
Volatile Organic Compounds (VOC)	0.08	1.16	0.32	
Sulfur Dioxide (SO2)	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID EU-02

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
Nitrogen oxides (NOx)	2.1	37.44	10.30	
Volatile Organic Compounds (VOC)	0.08	1.16	0.32	
Sulfur Dioxide (SO2)	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID EU-03

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
Nitrogen oxides (NOx)	2.1	37.44	10.30	
Volatile Organic Compounds (VOC)	0.07	1.16	0.32	
Sulfur Dioxide (SO2)	0.06	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.05	0.72	0.20	
HAPs	0.00	0.025	0.01	

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID EU-04

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
Nitrogen oxides (NOx)	1.2	37.44	10.30	
Volatile Organic Compounds (VOC)	0.04	1.16	0.32	
Sulfur Dioxide (SO2)	0.03	0.91	0.25	
Particulate Matter less than 10 microns in diameter (PM10)	0.03	0.72	0.20	
HAPs	0.00	0.025	0.01	

Treasure Island Resort and Casino
Energy Alternatives, Inc.
Emissions Calculations
Part 71 Permit Renewal

NOx Emissions

Emission Unit	2007 Annual Op Hrs (hr/yr)	NOx Emission Factors (lb/hr)	Actual Annual NOx Emissions (ton/yr)	Potential to Emit Hourly (lb/hr)	Potential to Emit Annual (ton/yr)
EU-01	134	29.58	2.0	37.44	10.30
EU-02	135	31.83	2.1	37.44	10.30
EU-03	127	33.09	2.1	37.44	10.30
EU-04	75	33.08	1.2	37.44	10.30
Total			7.5	149.76	41.18

NOx emission factors are from annual testing conducted January 22, 2008.
Potential to emit is based on current permit limits.

Other Criteria Pollutants

Pollutant:	VOC	SO2
Emission Factors (lb/hr)	1.16	0.9114

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	Potential to Emit Hourly (lb/hr)	Potential to Emit Annual (ton/yr)	Actual Emissions (ton/yr)	Potential to Emit Hourly (lb/hr)	Potential to Emit Annual (ton/yr)
EU-01	134	0.08	1.16	0.32	0.06	0.91	0.25
EU-02	135	0.08	1.16	0.32	0.06	0.91	0.25
EU-03	127	0.07	1.16	0.32	0.06	0.91	0.25
EU-04	75	0.04	1.16	0.32	0.03	0.91	0.25
Subtotals		0.27	4.64	1.28	0.21	3.65	1.00

Pollutant:	PM10	CO
Emission Factors (lb/hr)	0.715	3.05

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	Potential to Emit Hourly (lb/hr)	Potential to Emit Annual (ton/yr)	Actual Emissions (ton/yr)	Potential to Emit Hourly (lb/hr)	Potential to Emit Annual (ton/yr)
EU-01	134	0.05	0.72	0.20	0.20	3.05	0.84
EU-02	135	0.05	0.72	0.20	0.21	3.05	0.84
EU-03	127	0.05	0.72	0.20	0.19	3.05	0.84
EU-04	75	0.03	0.72	0.20	0.11	3.05	0.84
Subtotals		0.17	2.86	0.79	0.72	12.20	3.36

The VOC and CO emission factors were provided by Ziegler for a Caterpillar 3516B dry engine manifold.
SO2 (lb/hr) = 130.2 gal fuel/hr * density (7 lb fuel/gal) * 0.05 part S/100 parts fuel * lbmol S/32 lb S * 64 lb SO2/lbmol SO2
PM10 is calculated based on the fraction of PM10 in PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor provided by the engine manufacturer.
PM10 (lb/hr) = (0.0573 lb/MMBtu) / (0.0697 lb/MMBtu) * 0.87 lb/hr
Annual potential to emit is limited by a permit limit of 550 hours per year per engine.

Treasure Island Resort and Casino
Energy Alternatives, Inc.
Emissions Calculations
Part 71 Permit Renewal

HAP Emissions

Pollutant:	Benzene	Toluene	Xylenes	Formaldehyde
Emission Factors (lb/hr)	0.013	0.0047	0.00323	0.00132

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	Actual Emissions (ton/yr)	PTE Annual (ton/yr)
EU-01	134	8.71E-04	3.58E-03	3.15E-04	1.29E-03	2.16E-04	8.88E-04	8.84E-05	3.63E-04
EU-02	135	8.78E-04	3.58E-03	3.17E-04	1.29E-03	2.18E-04	8.88E-04	8.91E-05	3.63E-04
EU-03	127	8.26E-04	3.58E-03	2.98E-04	1.29E-03	2.05E-04	8.88E-04	8.38E-05	3.63E-04
EU-04	75	4.88E-04	3.58E-03	1.76E-04	1.29E-03	1.21E-04	8.88E-04	4.95E-05	3.63E-04
Subtotals		0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00

Pollutant:	Acetaldehyde	Acrolein	Naphthalene	**Total HAPs**
Emission Factors (lb/hr)	0.000422	0.000132	0.00217	**0.0223**

Emission Unit	Annual Op Hrs	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	Actual Emissions (ton/yr)	PTE Annual (ton/yr)	**Actual Emissions (ton/yr)**	**PTE Annual (ton/yr)**
EU-01	134	2.83E-05	1.16E-04	8.84E-06	3.63E-05	1.45E-04	5.97E-04	**0.00**	**0.01**
EU-02	135	2.85E-05	1.16E-04	8.91E-06	3.63E-05	1.46E-04	5.97E-04	**0.00**	**0.01**
EU-03	127	2.68E-05	1.16E-04	8.38E-06	3.63E-05	1.38E-04	5.97E-04	**0.00**	**0.01**
EU-04	75	1.58E-05	1.16E-04	4.95E-06	3.63E-05	8.14E-05	5.97E-04	**0.00**	**0.01**
Subtotals		0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	**0.03**

HAP emission factors are from Table 3.4-3 in AP-42.
EF (lb/hr) = (130.2 gal/hr) * (7 lb fuel/gal) * (18,290 Btu/lb) * (MMBtu/10^6 Btu) * EF (lb/MMBtu)

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 09/30/2010

Federal Operating Permit Program (40 CFR Part 71)

POTENTIAL TO EMIT (PTE)

For each unit with emissions that count towards applicability, list the emissions unit ID and the PTE for the air pollutants listed below and sum them up to show totals for the facility. You may find it helpful to complete form **EMISS** before completing this form. Show other pollutants not listed that are present in major amounts at the facility on attachment in a similar fashion. You may round values to the nearest tenth of a ton. Also report facility totals in section **J** of form **GIS**.

Emissions Unit ID	Regulated Air Pollutants and Pollutants for which the Source is Major (tons/yr)						
	NOx	VOC	SO2	PM10	CO	Lead	HAP
EU-01	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-02	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-03	10.3	0.3	0.3	0.2	0.8	0	0.0
EU-04	10.3	0.3	0.3	0.2	0.8	0	0.0
FACILTY TOTALS	41.2	1.3	1.0	0.8	3.4	0	0.0

Form FEE, Fee Calculation Worksheet, was submitted with the Annual Fee Payment on June 10, 2008 in accordance with the schedule in Section 4.0 (B) of Permit No. V-PI-R50004-03-01.

Form A-COMP, Annual Compliance Certification, was submitted May 2, 2008 in accordance with the schedule in Section 4.0 (D) of Permit No. V-PI-R50004-03-01.